SIMICON

TO MAKE THE FUTURE SAFE

AUTOMATIC TRAFFIC CONTROL EQUIPMENT

TRAFFIC ENFORCEMENT SYSTEMS

WORKS ON THE MOVE

Top-of-the line

All-in-one design

Automatic vehicle classification

Video streaming

High efficiency and reliability

"Cordon.Pro"M — a brand new automatic traffic enforcement system, ensuring the speed measurement with ±1 km/h accuracy both in stationary and moving modes. Automatic number plate recognition for numerous European, Asian and overseas countries. Unique ability to measure the average speed in combination with any other Cordon-family system.

The first on the market — quick switching between stationary, portable and mobile working modes.

In mobile mode the **"Cordon.Pro"M** system is installed on the vehicle without any interventions into the vehicle structure. In moving operation the speed limits are constantly adjusted using the embedded digital map and GPS/GLONASS receiver, and violation data is transmitted in real time via 3G/4G data channels.

The system is equipped with automatic vehicle class recognition system, operating on optical principle without access to any vehicle databases. Appropriate speed limit is automatically assigned to each car, based on its class. With vehicle classification, the system automatically detects the forbidden truck traffic either on entire road, or on particular lanes.

The system ensures ability to check the passing vehicles using the various databases in internal memory, gathering the statistical data on traffic flow and video control features.

25 W power consumption, system weight is just 5 kg without the mounting kit.

"**Cordon.Pro"V** — economical radar-free solution for average speed measurement in combination with any other "Cordon"-family sensor, vehicle search, automatic enforcement of various violations, road section control and vehicle classification.
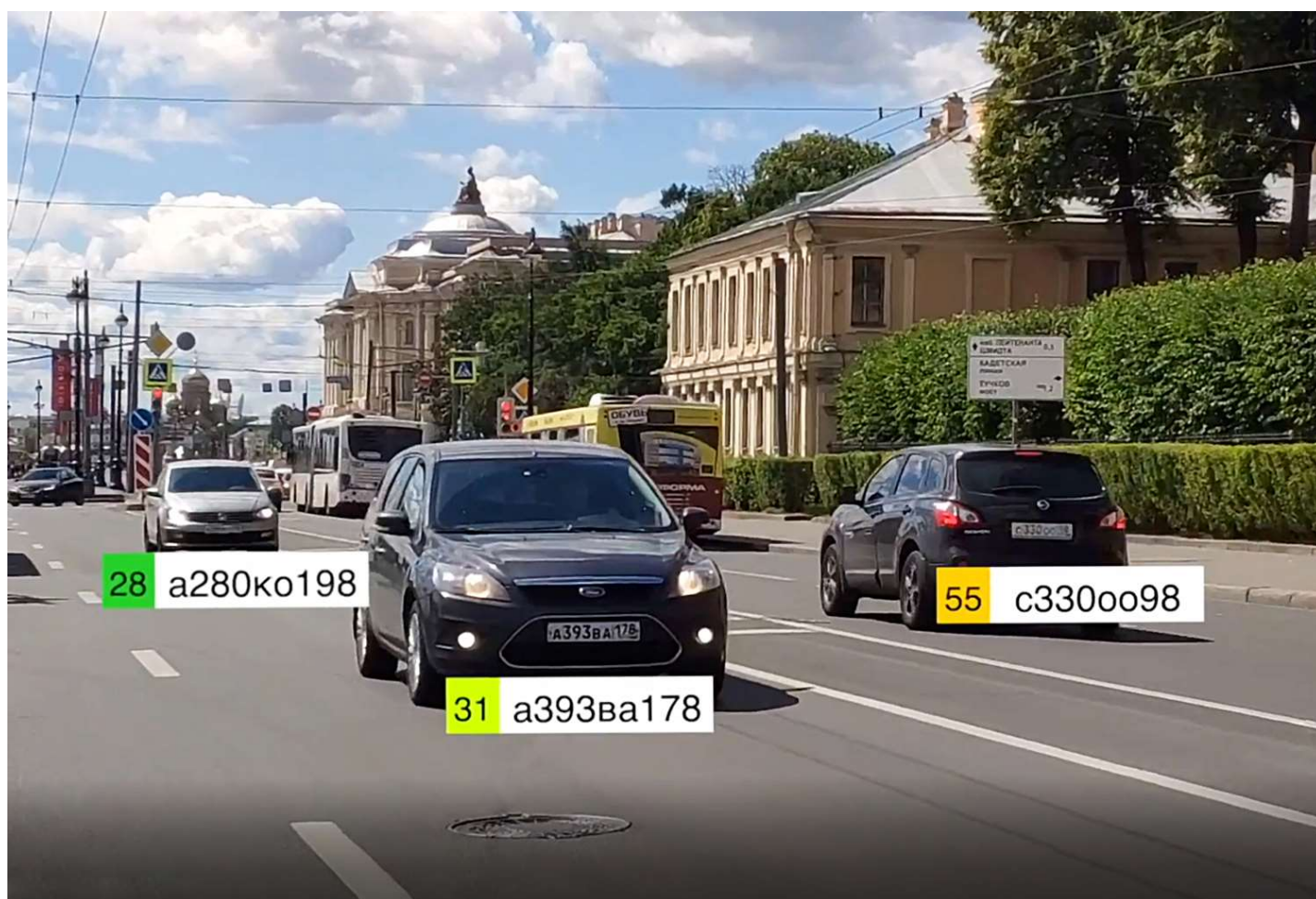
"Cordon.Pro"M on tripod - portable mode

"Cordon.Pro"M on pole - stationary mode

"Cordon.Pro"M. Example of operation in mobile mode. Saint-Petersburg

"Cordon.Pro"M inside the car - mobile mode

"Cordon.Pro"V on pole - stationary mode

PRODUCTS

AUTOMATIC TRAFFIC CONTROL AND

NEW

ALL-IN-ONE TRAFFIC ENFORCEMENT SOLUTION

"CORDON.PRO"

First all-in-one traffic enforcement system with automatic violation capturing on the move. Quick switching between stationary, portable and mobile operation modes.

Automatic number plate recognition, vehicle classification and photo-video capturing with real time data transfer. Checking the vehicles by various databases.

Ability to measure the average speed in combination with any other Cordon-family system.

AVERAGE AND INSTANT SPEED CONTROL

"CORDON-TEMP"

Average speed measurement on straight and curved roads between two and more sensors. Stationary system may represent a chain of sensors with continuous speed control along the entire road. Each sensor additionally controls instant speed and other traffic violations.
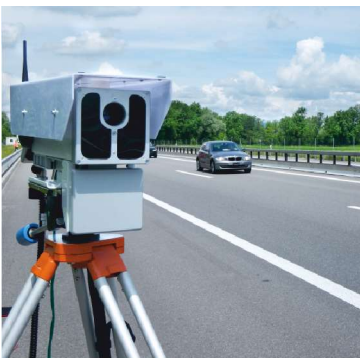
TRAFFIC ENFORCEMENT ON CROSSROADS AND RAILWAY CROSSINGS

"CORDON-M"KR

Speed measurement and violation detection on crossroads, railway crossings and pedestrian crossings: red light running, crossing the stop line, maneuvering in forbidden direction, and many other violations. Optical traffic light recognition without physical connection to controllers.

INSTANT SPEED CONTROL

"CORDON-M"

Automatic instant speed control and violation enforcement on two-way roads — up to 6 lanes of traffic. Automatic number plate recognition, vehicle classification and photo-video capturing with real time data transfer. Checking the vehicles by various databases.

ENFORCEMENT SYSTEMS

AUTOMATIC MULTI-LANE LIDAR WITH ANPR

NEW

"LIRA"

A compact handheld lidar combines the laser speed sensor, high-sensitivity camera and on-board ANPR system. Automatic recognition of all vehicle number plates in camera field of view, matching the vehicle image and measured speed. Convenient control using the embedded touchscreen and Android app via Wi-Fi.

MOBILE PARKING ENFORCEMENT AND RESERVED BUS LANE CONTROL

"PARKON-A"

On-the-go traffic enforcement system, operating in fully automatic mode. The system is installed inside any patrol vehicle or route vehicle (bus, tram, or trolley-bus). Ensures detection and automatic photo and video capturing of parking violations, as well as violations on reserved bus lane or tram rails. Embedded ANPR system and navigation unit make the violation capturing process fully automatic. Performs wanted vehicle search.

NUMBER PLATE RECOGNITION AND BASIC TRAFFIC CONTROL

"GROM-1"

Automatic number plate recognition, vehicle classification and photo-video capturing with real time data transfer. Performs vehicle movement control and basic traffic enforcement — checking the vehicles using the search databases, capturing violations related to driving on opposite lane, on roadside, on pavement, failure to stop before STOP sign and other violations.

Basic features:

- 6 - maximum number of controlled lanes
- B C D - automatic vehicle classification
- contactless integration
- online vehicle database search

Installation options:

- stationary, on the lamp post
- portable, on tripod
- mobile, in patrol vehicle
- portable, on car roof rails
- mobile, in route or patrol vehicle

VIOLATION CAPTURING

- Fully automatic operation on up to 6 traffic lanes simultaneously in both directions.
- Speed measurement range 2—300 km/h.
- A wide range of traffic violations is supported for automatic detection: movement in the wrong direction, on reserved bus lane, driving under the STOP sign without stopping, crossing the solid road marking, truck traffic ban enforcement, tailgating and other violations.
- Evidence data and video clip recording for each detected violation.
- Internal GPS/GLONASS receiver determines the geographic coordinates of the system and ensures automatic time synchronization with satellite navigation system.

VEHICLE SEARCH

- Automatic number plate recognition of various countries using the easy-to-learn neural network technology.
- Ability to check the passing vehicles using the various databases in internal memory, with voice notification for operator and immediate sending the data to Police Back Office.
- Special "Intercept" working mode for capturing the vehicles with missing or unreadable license plates.

EASE OF OPERATION

- Automatic monitoring of installation quality parameters with visual cues to the operator.
- 3D rotary bracket for quick installation on the lamp post.
- Minimum time required for initial setup.
- Various power supply options, including the custom-designed autonomous power units.

VIDEO MONITORING

- Ability to stream the video in real time using RTSP protocol.
- Automatic recording and storing the video clips of road situation to the archive (at least 12 hours of video), ability to search through archive for specified time period.

NIGHT TIME OPERATION

- Internal IR spotlight for nighttime operation, regardless of roadway lighting conditions.
- Optional external IR spotlight for guaranteed vehicle make and model visibility.

VEHICLE CLASSIFICATION

- The system is equipped with automatic vehicle class recognition system, using the machine vision technology without access to vehicle databases.
- Given the adequate lighting within the controlled area, the system determines the proper car class for oncoming traffic with at least 95% accuracy: cars, trucks, buses.
- Appropriate speed limit is automatically assigned to each car, based on its class.
- With vehicle classification, the system automatically detects the forbidden truck traffic either on entire road, or on particular lanes.

PROTECTION AND SAFETY

- Software and stored data protection against corruption and unauthorized changes.
- Logging of system events and user actions.
- Mechanical shock sensor with real time notifications via E-Mail and SMS.
- Optional armored enclosure ensures protection from handgun and shotgun munitions.

TELEMETRY AND DIAGNOSIS

- Self-testing and remote testing features.
- Automatic tracking of system performance with telemetry streaming in real time.
- Proprietary "Sputnik" server is available for centralized monitoring in the back-office.

DATA TRANSFER

- Wired or wireless (2G, 3G or 4G) data transfer over the secure Virtual Private Network (VPN).
- Automatic switching to backup data channels (4G, Wi-Fi) in case of main channel malfunction.
- Ability to stream the data to different servers simultaneously.

STATISTICS COLLECTION

- Gathering the statistical data on traffic flow properties.
- Plotting the interactive graphs on selected parameters.
- Analysis of captured violations with breaking down by violation types and overspeed amount.

SIMICON is a leading Russian company which uses the cutting edge technologies and solutions for developing the most advanced products for traffic safety.

SIMICON develops the traffic and speed enforcement systems from sketch till final product, performing hardware and software design, and manufacturing on site. Since foundation in 1991 the company offered many effective innovations for traffic control and speed enforcement.

Having over 28 years of development and expansion experience, SIMICON became a team of a hundred scientists and engineers, united and inspired by road safety concept.

Overall more than 8000 fixed and mobile automatic photo radar systems were delivered to the customers in most regions of Russia. There are over two thousand CORDON installations, including several cost-beneficial Public Private Partnership projects. Our products contributed to the decrease of road fatalities in Russia by more than a third during the last 10 years.

We use components of reliable European and Asian brands, and we have more than 100 regional representatives and service centers in many countries around the world.

Our Quality Assurance System and high professional technical support team provide the basis for a success in the most complex projects. The technical support is highly professional and customer-oriented, among the best in the industry.

SIMICON is successful on international markets, expanding the worldwide activity. The competitiveness of our modern products is confirmed by test reports and certificates issued by lead European and American laboratories and Institutes. Our products are used in Canada, Poland, Croatia, Singapore, China, Latvia, Armenia, Egypt, Vietnam, Kenya and some other countries.

Decades of experience
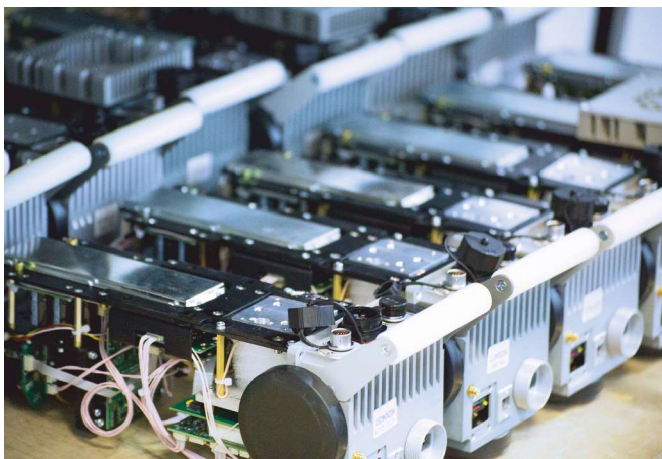
Over 20 patented technologies

A complete cycle from development to production
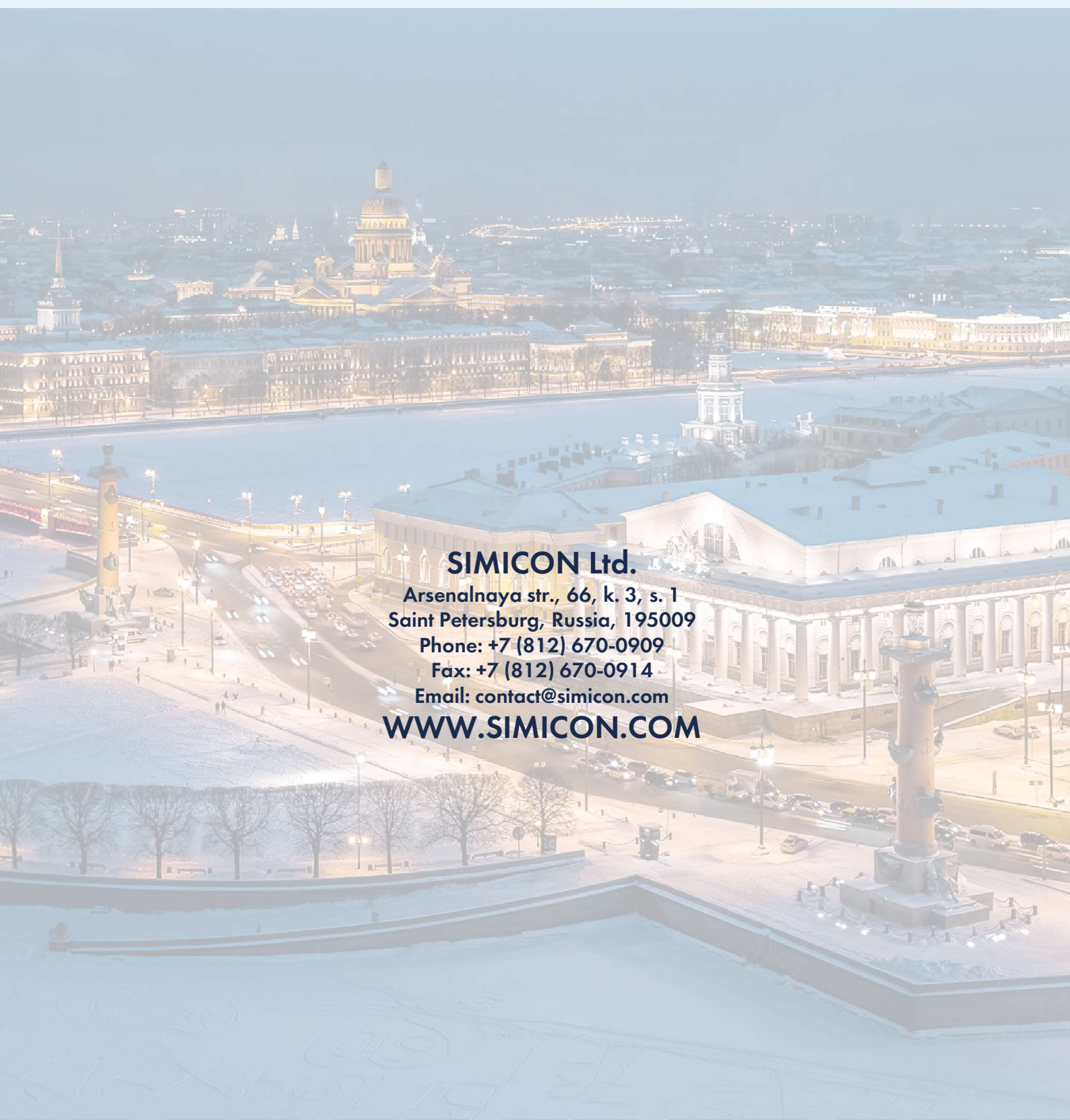
Over 8000 traffic enforcement systems delivered

Proprietary remote monitoring system

Technical support and training for partners

A range of representatives around the world

SIMICON Ltd.
Arsenalnaya str., 66, k. 3, s. 1
Saint Petersburg, Russia, 195009
Phone: +7 (812) 670-0909
Fax: +7 (812) 670-0914
Email: contact@simicon.com

WWW.SIMICON.COM